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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/630,838	07/31/2003	Seiichiro Fujioka	Q76718	1975
23373	7590	03/06/2006	EXAMINER	
SUGHRUE MION, PLLC 2100 PENNSYLVANIA AVENUE, N.W. SUITE 800 WASHINGTON, DC 20037			PATEL, ASHOK	
			ART UNIT	PAPER NUMBER
			2879	

DATE MAILED: 03/06/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

10/630,838

Applicant(s)

FUJIOKA ET AL.

Examiner

Ashok Patel

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 14 December 2005.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 27-35 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 27-35 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 31 July 2003 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |   |   |
|---|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)  | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)  | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date <u>102705</u> . | 6) <input type="checkbox"/> Other: _____  |

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1. The drawings are objected to under 37 CFR 1.83(a). The drawings must show every feature of the invention specified in the claims. Therefore, the bar shaped electrodes, as recited in claims 8-11, must be shown or the feature(s) canceled from the claim(s). No new matter should be entered.

Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as "amended." If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required

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corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

According to Webster's Dictionary (Third College Edition), the term "bar" refers to a piece (of metal, metal alloy etc.) longer than it is wide or thick. The Example includes a chocolate bar, a soap bar etc., which includes rectangular shape, not shown in any drawing Figure. The shape of element 3 as shown in applicant's Drawing Figures is cylindrical. If applicant refers element 3 as bar shape, then the Examiner interprets same element of prior art reference as bar shape.

2. Applicant's arguments with respect to claims 27-35 have been considered but are not found persuasive.

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless -

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

4. Claims 27-35 are rejected under 35 U.S.C. 102(b) as being anticipated by Hamada et al (USPN 6,172,453).

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As to claims 27, 28, 30, 31, 33 and 34, Hamada et al disclose applicant's claimed cold cathode lamp (Figures 2-4, and 9-14; col. 1, lines 28-36; 54-65; col. 13, lines 34-65; col. 15, line 19 to col. 17, line 53) including: electrodes (24, 25, 27) fixed on respective ends of a glass tube (21, 3); and a rare gas or a rare gas and mercury vapor (col. 1, lines 43-44; col. 2, lines 12-20; lines 49-55 etc.) sealed in the glass tube; wherein at least surfaces of the electrodes are composed of nitride of at least one of zirconium (Zr), Tantalum (Ta), hafnium (Hf) and Niobium (Nb) (at least at col. 13, lines 60-65).

As to claim 27, as mentioned earlier in this office action in Drawings objections, the Examiner interprets the element 24, 25 or 27 of Hamada et al's device as bar-shaped element in view of Drawings objections.

As to claims 29, 32 and 35, Hamada et al disclose the electrodes coated with the nitrides (col. 13. lines 60-65).

As to claim 30, Hamada et al disclose the electrodes as tubular (Figure 4b; 9b, 12b, 13b).

As to claims 33, Hamada et al disclose the electrodes being cup-shaped (Figure 4b; 9b, 12b, 13b). The cup shaped electrodes is interpreted as tubular.

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5. If applicant disagrees with the Examiner's interpretation of Hamada et al's electrode shape as bar-shaped, then the Examiner alternatively rejects claims 27-29 under 35 U.S.C. 103 as follows.

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

7. Claims 27-29 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hamada et al, as applied to claim 1.

As to claim 27, Hamada et al do not disclose the electrode having a bar-shape, as claimed by applicant. However, it would have been obvious to one of ordinary skill in the art to provide any different suitable shape of the electrode for emitting electrons as long as it performs same function during operation

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of the lamp. In light of this, Hamada et al would have suggested to one of ordinary skill in the art to provide the electrode of any suitable shape.

Further, as to claims 27, it is however noted that rectangular bar-shapes electrode does not solve any particular problem, or does not yield any unexpected result, that is not within the scope of prior art cold cathode lamp electrode. Accordingly, applicant's claimed bar-shaped electrode would have been a matter of obvious design choice to one of ordinary skill in the art at the time the invention was made.

As to claims 27 and 28, Hamada et al further, disclose the electrode having at least surfaces composed of nitride of at least one of zirconium (Zr), Tantalum (Ta), hafnium (Hf) and Niobium (Nb) (at least at col. 13, lines 60-65).

As to claim 30, Hamada et al disclose the electrodes coated with the nitrides (col. 13. lines 60-65).

8. The Examiner replies to applicant's arguments, filed on 12/14/2005, as follows.

Applicant argues that Hamada do not teach or suggest disclose a cold cathode lamp having electrodes with specific shape and made of material as claimed in claim 27, 30 or 33.

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This is not found persuasive. The shape and material composition Hamada et al's electrode 24, 27 or 30 is same as that of applicant's device. Therefore, it is the Examiner's position that Hamada et al teach or suggest the cold cathode lamp having electrodes with specific shape and made of material as claimed in claim 27, 30 or 33.

9. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Ashok Patel




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whose telephone number is 571-272-2456. The examiner can normally be reached on Monday-Thursday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Nimesh Patel can be reached on 571-272-2457. The fax phone number for the organization where this application or proceeding is assigned is (571) 273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Ashok Patel  
Primary Examiner  
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